

What is claimed is:

1. 1. A method comprising:
partitioning a database corresponding to object images into a first partition and
a second partition based on a fuzzy similarity analysis of a measure of the object images to a
first threshold.
1. 2. The method of claim 1, further comprising:
partitioning each of the first partition and the second partition into at least two
portions so that the measure of the object images having a fuzzy similarity more than or equal
to a second threshold cluster into a selected one of the at least two portions.
1. 3. The method of claim 1 further comprising:
deriving a feature set for each of the object images from contours of at least
two views of objects corresponding to each of the object images.
1. 4. The method of claim 1, further comprising determining a feature set from
image content of a query object image.
1. 5. The method of claim 4, further comprising using fuzzy logic to search the
database for at least one image similar to the query object image.
1. 6. The method of claim 5, wherein using the fuzzy logic comprises comparing
one object image from each of said first and second partitions with said query object image.
1. 7. The method of claim 6, further comprising:
based on the comparison, obtaining the at least one similar image as a match in
the partition that indicates maximum similarity with said query object image.

1 8. The method of claim 1, further comprising:
2 forming a similarity matrix for the object images within the database before
3 partitioning the database.

1 9. A method comprising:
2 obtaining a query image; and
3 searching a database corresponding to object images for a solution set having a
4 maximum similarity to the query image using fuzzy logic.

1 10. The method of claim 9, wherein searching the database comprises comparing a
2 single image of each of a plurality of sets within the database to the query image.

1 11. The method of claim 10, wherein comparing the single image comprises
2 comparing a feature vector of the query image to a corresponding feature vector of the single
3 image.

1 12. The method of claim 9, further comprising partitioning the database into a
2 plurality of sets based on fuzzy logic theory.

1 13. The method of claim 12, further comprising partitioning the database into a
2 plurality of levels, each of the levels corresponding to a similarity threshold.

1 14. The method of claim 9, further comprising displaying at least one object image
2 corresponding to the solution set.

1 15. An article comprising a machine-readable storage medium containing
2 instructions that if executed enable a system to:
3 obtain a query image; and
4 search a database corresponding to object images for a solution set having a maximum
5 similarity to the query image using fuzzy logic.

1 16. The article of claim 15, further comprising instructions that if executed enable
2 the system to compare a single image of each of a plurality of sets within the database to the
3 query image.

1 17. The article of claim 15, further comprising instructions that if executed enable
2 the system to partition the database into a plurality of sets based on fuzzy logic.

1 18. The article of claim 16, further comprising instructions that if executed enable
2 the system to compare a feature vector of the query image to a corresponding feature vector of
3 the single image.

1 19. A system comprising:
2 a dynamic random access memory containing instructions that if executed enable the
3 system to partition a database corresponding to object images into a first partition and a
4 second partition based on a fuzzy similarity analysis of a measure of the object images to a
5 first threshold; and
6 a processor coupled to the dynamic random access memory to execute the instructions.

1 20. The system of claim 19, further comprising instructions that if executed enable
2 the system to derive a feature set for each of the object images from contours of at least two
3 views of objects corresponding to each of the object images.

1 21. The system of claim 19, further comprising instructions that if executed enable
2 the system to use fuzzy logic to search the database for at least one image similar to a query
3 object image.

1 22. The system of claim 21, further comprising instructions that if executed enable
2 the system to obtain the at least one similar image as a match in the partition that indicates
3 maximum similarity with said query object image.

1 23. The system of claim 22, further comprising a display coupled to the processor
2 to display the query object image and the at least one similar image.